



engineering and constructing a better tomorrow

June 10, 2011

Mr. Christopher O'Neill, P.E.
New York State Department of Environmental Conservation
Office of Environmental Quality, Region 4
1130 North Westcott Road
Schenectady, New York 12306-2014

Subject: Vapor Intrusion Investigation Report
Spill #99909741
Former Furon Site
1 Liberty Street
Hoosick Falls, New York

Dear Mr. O'Neill,

Mactec Engineering and Consulting, Inc. (Mactec) has prepared this Vapor Intrusion Investigation Report (VI Report) on behalf of our client, Honeywell International Inc. (Honeywell), to document the results of vapor intrusion sampling completed in January 2011 at the referenced location. The work was completed as outlined in the Additional Vapor Intrusion Work Plan dated November 2, 2010, and as described below.

SITE DESCRIPTION

Allied Signal (a Honeywell predecessor) sold the referenced facility to Furon Company in February 1996. Saint-Gobain Corporation (Saint-Gobain) acquired the facility from Furon in December 1999. Saint-Gobain currently owns and operates the manufacturing facility.

The Liberty Street site (Site) is an active plastics manufacturing facility which consists of a rectangular series of interconnected buildings located in the approximate center of the property. Paved and gravel covered parking areas and driveways surround the buildings. There are several small courtyard areas located between the buildings. Grass-covered areas are located around the perimeter of the property. Saint-Gobain reports that the buildings are slab-on-grade with no basements.

SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIATION ACTIVITIES

A Phase II Environmental Site Assessment (ESA) was completed for the Liberty Street facility in 1996 by Parsons Engineering Science, Inc. (Parsons). The results of the Phase II ESA were documented in a

Parsons report dated May 1996. Among the findings of note, a soil sample collected in a small courtyard on the eastern side of the facility contained concentrations of chlorinated volatile organic compounds (VOCs) that exceeded the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046 guidance values. Parsons recommended further evaluation of the area.

In late 1999, a Honeywell contractor completed remedial activities for the courtyard area that involved the excavation and off-site disposal of soils impacted by trichloroethene (TCE) and breakdown products. A letter report dated March 8, 2000 was issued by Parsons that documented the work and provided conclusions and recommendations. During the excavation work, a sheen was noted on water that had accumulated within the excavation and a spill notification was subsequently made to NYSDEC (Spill No. 99-09741). The final excavation dimensions were reported to be 7 feet wide, 16 feet long and 10 feet deep. Side wall samples collected from the excavation did not exceed TAGM 4046 soil cleanup objectives. A sample collected from the bottom of the excavation contained reported concentrations of TCE (1,800 ug/kg) and cis-1,2-dichloroethene (DCE) (810 ug/kg) that exceeded the TAGM guidance values of 700 ug/kg and 300 ug/kg, respectively. In addition, tetrachloroethene (PCE) was not detected in the soil sample collected within the facility courtyard (the detection limit for PCE was 3.4 µg/Kg).

Due to access limitations associated with the courtyard location and adjacent facility buildings; it was not possible to deepen the excavation. However, because clay soils were encountered at the bottom of the excavation and because the adjacent buildings do not have basements, Parsons concluded that only a small amount of impacted soil remained and that no vapor intrusion hazard was present. The excavation was therefore backfilled to grade with flowable cement to complete the remedial activities.

It should be noted that the current restricted use Soil Cleanup Objectives (SCOs) at industrial sites, as established under 6 NYCRR Part 375, are 400,000 ug/kg for TCE and 1,000,000 ug/kg for cis-1,2-dichloroethene. Thus, the concentrations of TCE and cis-1,2-DCE reported in soil at the Liberty Street courtyard remediation area in 1999 are orders of magnitude lower than the SCO criteria for direct contact risk. However, the prior investigations did not quantitatively evaluate the potential risk from vapor intrusion.

In a response to the 2006 letter issued to Saint-Gobain from the NYSDEC requesting the evaluation of vapor intrusion (VI) potential at the former Furon facility, Mactec investigated conditions at the Site. In 2009, NYSDEC issued a letter directing that VI investigation work was required for the Liberty Street

facility in order to evaluate the VI pathway in accordance NY state guidance. Mactec, on behalf of Honeywell, issued an SVI sampling plan dated November 4, 2009 that was reviewed and approved by NYSDEC. VI sampling was conducted at the facility on January 20, 2010 (during the 2009/2010 winter heating season).

The results of the January 2010 VI sampling event were presented to NYSDEC in a Mactec letter report dated June 30, 2010. Several VOCs were detected in sub-slab soil vapor and indoor air samples. Based on the product inventory and interviews with Site personnel, as well as comparison of sub-slab vapor concentrations to indoor air concentrations, it was concluded by Mactec that most of the VOCs detected within the facility indoor air samples were likely attributed to stored or current material usage and manufacturing processes or other sources (such as items associated with contractors or employees). However, TCE, the primary contaminant of concern with respect to the VI sample analytical results, was detected in sub-slab vapor at a concentration of $540 \mu\text{g}/\text{m}^3$. TCE was detected in the indoor air at a concentration of $5.9 \mu\text{g}/\text{m}^3$, which exceeds the NYSDOH indoor air guidance value for TCE (based on a residential exposure scenario) of $5 \mu\text{g}/\text{m}^3$. By comparison, the EPA Regional Screening Level (RSL), which is a guidance value set at 10⁻⁶ risk and hazard index of 1, is $6.2 \mu\text{g}/\text{m}^3$ for industrial facilities.

Based on the results of the January 2010 VI investigation, NYSDEC issued a letter to Mactec dated September 15, 2010, that requested mitigation “in order to eliminate potential exposures to TCE in the indoor air” and that “indoor air monitoring be conducted to evaluate current exposures”. The NYSDEC letter stated that additional information regarding building construction, specifically information regarding footers and drains, should be obtained. In response to the NYSDEC comments, Mactec prepared an Additional Vapor Intrusion Work Plan, dated November 2, 2010. This report documents the results of implementation of the November 2010 Work Plan.

SCOPE OF WORK

The following sections describe the scope of work associated with the January 2011 VI sampling event completed at the Liberty Street facility.

Site Inspection

Mactec visited the Liberty Street site on January 25, 2011 and met with Saint-Gobain representative Mr. PJ Beaumont (Maintenance and Facility Engineering Manager) to gather additional information regarding

site conditions, building subsurface utilities, and further evaluate the facility floor drain system. Also in attendance were Mr. Chris O'Neill (NYSDEC) and Mr. Albert DeMarco (NYSDOH). During the site inspection, proposed locations for permanent sub-slab sampling points and indoor air samples were identified and reviewed with NYSDEC and NYSDOH personnel for approval. Sample locations focused on areas with the greatest potential for VI exposure based on available information.

During the site inspection, Mactec completed a brief indoor chemical inspection of the building. Based on discussions with the NYSDOH and NYSDEC, it was determined that the full chemical inventory and photoionization detector (PID) survey would be conducted at the time of sampling. In addition, the NYSDEC and the NYSDOH representatives stated that the chemical inventory should be conducted in each room where the samples were being collected (i.e. kitchen and office), and in the immediate vicinity of the rooms to be sampled, but the inspection did not need to include the entire facility due to the facility size and the confined areas to be sampled. Chemical inventory information is provided on the Indoor Air Quality and Building Inventory form provided in Attachment A. Mactec also further interviewed Saint-Gobain representatives to collect information regarding past and present chemical usage at the facility. Although Saint-Gobain representatives have historically stated that toluene, xylene, and ethylbenzene were used in the facility, the primary chemicals used in the plastics manufacturing process at the facility were proprietary and could not be revealed.

Due to the openness of the facilities and the apparent large air exchange rate with exterior air in the main buildings, the primary potential health risk is anticipated to be in the smaller occupied areas. Based on this information and data collected by Mactec in 2010, as well as discussions with the NYSDEC and NYSDOH during the site inspection, it was determined that six permanent sub-slab sample points would be installed for collection of subslab vapor samples and six indoor air samples would be collected, as well as one outdoor ambient air sample. This was consistent with the November 2010 Work Plan. The sub-slab sample locations were chosen after review of the facility during the site inspection and were based on proximity to potential contamination areas, as well as layout (i.e. footings and floor drains) and floor construction of the buildings. The locations of the January 2011 VI samples are shown on Figure 1.

Vapor Intrusion Sampling (January 2011)

VI sampling was conducted at the Liberty Street facility on January 26, 2011 (during the 2010/2011 winter heating season). The facility is an active manufacturing facility and samples were collected during regular working hours.

The additional VI sampling was conducted in general accordance with the November 2, 2010 Work Plan. The sampling methods comply with current NYSDOH VI guidance. The previous three sub-slab sample locations were re-sampled in 2011, along with three new locations. In general, the SVI sampling steps were:

1. Survey the sampling locations with a PID and complete an Indoor Air Quality Questionnaire and Building Inventory Form (completed Field Data Records are included in Attachment A). PID readings within the facility are also shown on Figure 1. PID readings within the facility ranged from 750 parts per billion (ppb) to 5,500 ppb.
2. Drill a 1.25-inch hole through the buildings' slab at each of the six sub-slab locations (electrical room, warehouse, supervisor's office, Quality Assurance [QA] office, human resources office, and hallway) approximately two-inches into the concrete. The 1.25-inch hole was then advanced approximately 1 to 2 inches through the slab with a 5/8-inch drill bit.
3. A 7-inch stainless-steel Swagelok permanent sub-slab soil vapor sampling point was then installed in the hole. The vapor points were completed at the ground surface with a fast drying hydraulic cement. A diagram of the permanent soil vapor point installation is included in Attachment B.
4. Approximately 12 hours after installing the permanent soil vapor points, one 60 cc volume was purged with a Syringe from the points prior to connecting the SUMMA canisters. The sub-slab samples were then connected to the soil vapor point with 1/4-inch solid Teflon tubing using a stainless steel nut, feral and collar.
5. Set up six indoor air SUMMA canisters (breakroom, breakroom adjacent to maintenance shop supervisor's office, QA office, human resources office, and hallway) and one outdoor ambient air SUMMA canister (set in open courtyard).
6. Open valves on all canisters at roughly the same time for 8-hour sample collection time.
7. Check the sample flow valves periodically during the 8-hour time frame to ensure that the samples were being collected over the proper time interval.
8. After the 8-hour sampling period had elapsed, pick up the canisters and place stainless-steel caps back on the permanent soil vapor points.
9. Label and ship the SUMMA canister samples with chain-of-custody to Test America, a NYSDOH ELAP certified laboratory. Samples were analyzed for VOCs by USEPA TO-15 analysis.

Data Evaluation

Upon receipt of the laboratory analysis, a data usability summary report (DUSR) was completed by a Mactec chemist following the NYSDEC guidance (NYSDEC, 2002). Based on the outcome of the DUSR, the data was deemed usable as presented in this report. The DUSR and complete analytical data is included in Attachment C. Detected compounds and analytical results for the Liberty Street Site are summarized in Table 1.

Several VOCs were detected in the soil vapor and indoor air samples collected at the Liberty Street facility in January 2011. Based on the product inventory and interviews with Site personnel, as well as a comparison of sub-slab vapor concentrations to indoor air concentrations, most of the VOCs detected within the facility are likely to be related to manufacturing processes within the building. These include the compounds that facility personnel indicated were used within the facility (toluene, ethylbenzene, and xylene).

Several aerosol canisters of Zep Lubrisil, both used and unused, were observed by Mactec in the machine shop during the chemical inventory in January 2011. The can labels identified TCE and PCE as the main constituents in Zep Lubrisil, a silicone lubricant and mold releasing agent. Photographs taken during the January 2011 VI sampling event are included in Attachment D. PCE concentrations detected in the indoor air adjacent to the machine shop ($2,200 \mu\text{g}/\text{M}^3$ at IA-02) were an order of magnitude greater than the adjacent sub-slab soil vapor sample ($160 \mu\text{g}/\text{M}^3$ at SS-05), indicating that the PCE detections in the facility are likely the result of the use of the chemical within the facility.

TCE is the primary chemical of concern for soil vapor intrusion from the historic soil removal within the facility courtyard. The highest concentrations of TCE detected in sub-slab vapor were from samples SS-1 ($1,100 \mu\text{g}/\text{M}^3$) and SS-7 ($560 \mu\text{g}/\text{M}^3$). The highest TCE concentration detected in indoor air was $45 \mu\text{g}/\text{M}^3$. Although the indoor air detection may be influenced by soil vapor intrusion, it is likely primarily the result of chemicals used/stored within the facility, or the breakdown product of the PCE detected in the indoor air within the facility. Although the NYSDOH indoor air guidance value for TCE is $5 \mu\text{g}/\text{M}^3$, this guidance value is protective for residential exposures.

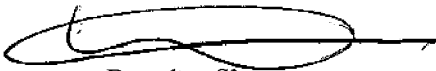
In addition, due to the use of PCE and TCE within the facility (in the Zep Lubrisil), Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PEL) are used for industrial settings. These limits are $685,000 \mu\text{g}/\text{M}^3$ for PCE and $537,000 \mu\text{g}/\text{M}^3$ for TCE. American Conference of Industrial Hygienists threshold limit values (TLVs) are often considered more conservative for industrial corporations and therefore more applicable than the PEL limits. The TLV for PCE is $170,000 \mu\text{g}/\text{M}^3$ and for TCE is $54,000 \mu\text{g}/\text{M}^3$. Based on these values, and the use of PCE and TCE within the facility, vapor intrusion is does not appear to be resulting in an increased health risk for workers within the facility. Therefore no further investigation of the SVI pathway is recommended.

June 2011


We trust that this VI Report satisfies the requirements of NYSDEC. Please contact Mr. Richard Galloway of Honeywell at (973) 455-4640 or Mr. John Scrabis of Mactec at (412) 279-6661 should you have any questions or require additional information.

Sincerely,

Mactec Engineering and Consulting, Inc.



Brandon Shaw
Project Scientist


John M. Scrabis
Sr. Principal Engineer

(for JMS with permission)

CS:JMS/llg

w/atts

cc: S.Coladonato (Honeywell)
J. Smith (Saint-Gobain)

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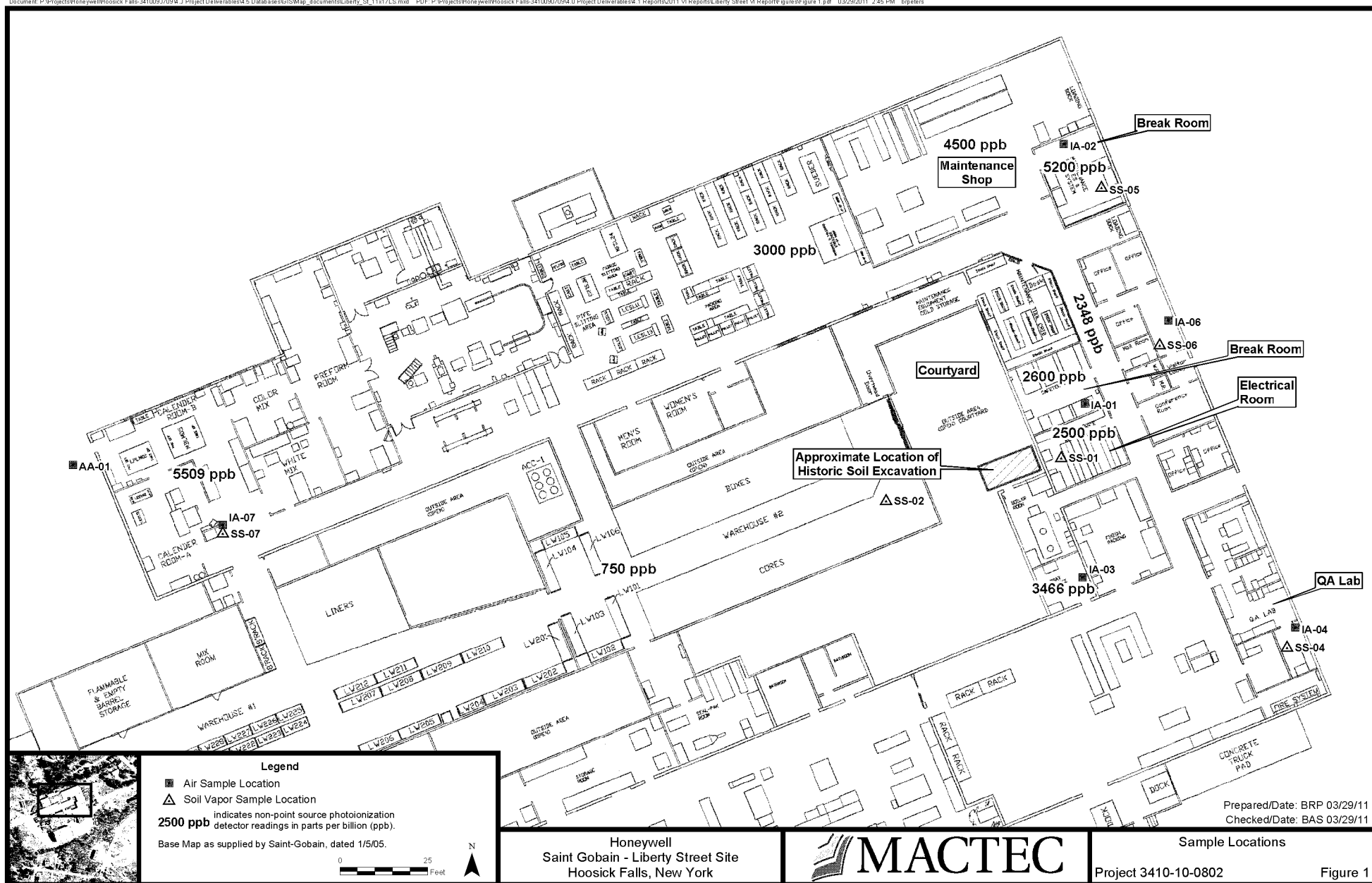


Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Parameter Name	Location		LS-AA-01-2		LS-IA-01-2		LS-IA-02-2		LS-IA-03-2		LS-IA-04-2	
	Sample ID		AA-01-2		IA-01-2		IA-02-2		IA-03-2		IA-04-2	
	Sample Date		01/26/11		01/26/11		01/26/11		01/26/11		01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-TRICHLOROETHANE	0.27	U	1.1	U	5.5	U	2.7	U	11	U		
1,2-DICHLOROETHANE	0.061	U	0.24	U	1.2	U	0.61	U	2.5	U		
1,2-DICHLOROETHENE (TOTAL)	0.4	U	1.6	U	7.9	U	4	U	16	U		
1,2-DICHLOROTETRAFLUOROETHANE	0.084	U	0.34	U	11	J	0.84	U	3.4	U		
1,3,5-TRIMETHYLBENZENE	0.31	U	1.3	U	6.3	U	3.1	U	13	U		
2,2,4-TRIMETHYLPENTANE	0.061	U	0.24	U	1.2	U	0.61	U	2.5	U		
4-ETHYLTOLUENE	0.31	U	1.3	U	6.3	U	3.1	U	13	U		
BENZENE	1.1		2.7		4.6	J	4.9	J	6.9	J		
BROMODICHLOROMETHANE	0.34	U	1.3	U	6.7	U	3.4	U	14	U		
CARBON TETRACHLORIDE	0.5	J	1.3	U	6.3	U	3.1	U	13	U		
CHLOROFORM	0.24	U	0.98	U	4.9	U	2.4	U	9.9	U		
CIS-1,2-DICHLOROETHENE	0.2	U	0.79	U	4	U	2	U	8	U		
CYCLOHEXANE	0.17	J	0.82	J	0.83	U	1.7	J	39			
DICHLORODIFLUOROMETHANE	2.9		3.1	J	10	J	0.59	U	2.4	U		
ETHYLBENZENE	1.5		11		31		48		46			
METHYLENE CHLORIDE	0.46	J	0.42	U	2.1	U	1	U	4.2	U		
N-HEPTANE	0.31	J	4		2.2	U	2	J	18	J		
N-HEXANE	0.64	J	6.5		20		48		16	J		
O-XYLENE	1.1		8.7		23		34		37			
TETRACHLOROETHENE	7.7		59		2200		5.5	J	4.7	U		
TOLUENE	35		290		1300		750		5000			
TRANS-1,2-DICHLOROETHENE	0.2	U	0.79	U	4	U	2	U	8	U		
TRICHLOROETHENE	0.075	U	2.8	J	45		0.75	U	3	U		
TRICHLOROFLUOROMETHANE	1.3		1.5	J	5.6	U	2.8	U	11	U		
XYLENES, M & P	5		40		110		170		160			
XYLENES, TOTAL	6.1		49		130		200		200			

Notes:

VOC = volatile organic compounds

IA = indoor air sample

SS = sub-slab soil vapor sample

Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value

Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Location Sample ID Sample Date	LS-IA-06-2 IA-06-2 01/26/11		LS-IA-07-2 IA-07-2 01/26/11		LS-SS-01-2 SS-01-2 01/26/11		LS-SS-01-2-D SS-01-2 01/26/11		LS-SS-02-2 SS-02-2 01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Parameter Name										
1,1,1-TRICHLOROETHANE	0.55	U	2.7	U	9		8.7		0.27	U
1,2-DICHLOROETHANE	1.3	J	0.61	U	0.49	U	0.49	U	0.061	U
1,2-DICHLOROETHENE (TOTAL)	0.79	U	4	U	22		21		0.51	J
1,2-DICHLOROTETRAFLUOROETHANE	0.17	U	0.84	U	0.67	U	0.67	U	0.084	U
1,3,5-TRIMETHYLBENZENE	0.63	U	3.1	U	2.5	U	2.5	U	0.31	U
2,2,4-TRIMETHYLPENTANE	0.12	U	0.61	U	0.49	U	0.49	U	0.28	J
4-ETHYLTOLUENE	0.63	U	3.1	U	2.5	U	2.5	U	0.31	U
BENZENE	1.6		5.4	J	1.3	U	1.3	U	1.3	
BROMODICHLOROMETHANE	0.67	U	3.4	U	11		9.3	J	0.34	U
CARBON TETRACHLORIDE	0.63	U	3.1	U	2.5	U	2.5	U	0.49	J
CHLOROFORM	0.49	U	2.4	U	26		24		0.24	U
CIS-1,2-DICHLOROETHENE	0.4	U	2	U	20		19		0.51	J
CYCLOHEXANE	0.35	J	1.7	J	0.33	U	0.33	U	0.31	J
DICHLORODIFLUOROMETHANE	3.1	J	0.59	U	0.47	U	0.47	U	3	
ETHYLBENZENE	4.2		32		0.49	U	0.49	U	0.71	J
METHYLENE CHLORIDE	0.71	J	1	U	0.83	U	14	U	1.7	U
N-HEPTANE	0.7	J	1.9	J	0.89	U	0.89	U	0.47	J
N-HEXANE	2.5		19		0.65	U	0.65	U	0.57	J
O-XYLENE	3.4		23		1.7	U	1.7	U	0.6	J
TETRACHLOROETHENE	22		530		14		12		7.5	
TOLUENE	100		780		5.2	J	4.2	J	14	
TRANS-1,2-DICHLOROETHENE	0.4	U	2	U	1.7	J	1.6	J	0.2	U
TRICHLOROETHENE	0.57	J	7.7	J	1100		980		4.5	
TRICHLOROFLUOROMETHANE	1.4	J	2.8	U	2.2	U	2.2	U	1.5	
XYLENES, M & P	15		110		0.8	U	0.8	U	2.2	
XYLENES, TOTAL	18		130		5.2	U	5.2	U	2.8	

Notes:

VOC = volatile organic compounds

IA = indoor air sample

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Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value

Table 1: 2011 Soil Vapor/Indoor Air VOC Results

Location Sample ID Sample Date	LS-SS-04-2 SS-04-2 01/26/11		LS-SS-05-2 SS-05-2 01/26/11		LS-SS-06-2 SS-06-2 01/26/11		LS-SS-07-2 SS-07-2 01/26/11	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Parameter Name								
1,1,1-TRICHLOROETHANE	0.27	U	12		0.59	J	1.4	J
1,2-DICHLOROETHANE	0.061	U	0.061	U	0.061	U	0.26	U
1,2-DICHLOROETHENE (TOTAL)	0.4	U	0.4	U	0.4	U	110	
1,2-DICHLOROTETRAFLUOROETHANE	0.084	U	0.084	U	0.084	U	0.36	U
1,3,5-TRIMETHYLBENZENE	3.6		2.2		1.8		1.3	U
2,2,4-TRIMETHYLPENTANE	0.061	U	0.061	U	0.061	U	0.26	U
4-ETHYLTOLUENE	1.2		2.3		0.49	J	1.3	U
BENZENE	0.52	J	1.1		0.54	J	0.68	U
BROMODICHLOROMETHANE	0.34	U	0.34	U	0.34	U	1.4	U
CARBON TETRACHLORIDE	0.44	J	0.38	J	0.33	J	1.3	U
CHLOROFORM	0.24	U	0.24	U	0.24	U	1	U
CIS-1,2-DICHLOROETHENE	0.2	U	0.2	U	0.2	U	110	
CYCLOHEXANE	0.21	J	0.3	J	0.35	J	0.18	U
DICHLORODIFLUOROMETHANE	3.1		2.9		2.9		3.1	J
ETHYLBENZENE	0.59	J	3.4		1.9		0.26	U
METHYLENE CHLORIDE	1.7	U	1.7	U	1.7	U	0.44	U
N-HEPTANE	0.7	J	1.4		1.3		0.47	U
N-HEXANE	0.56	J	0.97		0.49	J	0.35	U
O-XYLENE	1.1		2.2		2.4		0.92	U
TETRACHLOROETHENE	2.6		160		13		17	
TOLUENE	9.2		14		13		3.8	
TRANS-1,2-DICHLOROETHENE	0.2	U	0.2	U	0.2	U	0.84	U
TRICHLOROETHENE	0.75	J	40		2.4		560	
TRICHLOROFLUOROMETHANE	1.5		1.5		1.5		1.6	J
XYLENES, M & P	1.9	J	3.8		9.9		0.43	U
XYLENES, TOTAL	3		6		12		2.8	U

Notes:

VOC = volatile organic compounds

IA = indoor air sample

SS = sub-slab soil vapor sample

Samples analyzed by Test America by USEPA Method TO-15

Only detected compounds shown; detections are in bold.

Results in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Qualifiers:

U = compound not detected above method detection limit

J = Estimated value

ATTACHMENT A
JANUARY 2011 FIELD DATA RECORDS

INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - Liberty Street LOCATION ID: LS DATE: 01-26-2011
 PROJECT NO./TASK NO.: 3410100802 CLIENT: Honeywell
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw
 WEATHER CONDITIONS (AM): 30°F, partly cloudy SAMPLER SIGNATURE: [Signature]
 WEATHER CONDITIONS (PM): 30°F, dark CHECKED BY: BJS DATE: 3/31/2011

SUMMA Canister Record Information

INDOOR AIR		INDOOR AIR		INDOOR AIR		ASSOCIATED AMBIENT AIR	
Flow Regulator Number:	3175	Flow Regulator Number:	4189	Flow Regulator Number:	3736	Flow Regulator Number:	2925 2937
Flow Rate (mL/min):	~13	Flow Rate (mL/min):	~12	Flow Rate (mL/min):	~13	Flow Rate (mL/min):	~10
Canister Serial Number:	3072	Canister Serial Number:	2537	Canister Serial Number:	2693	Canister Serial Number:	2708 4022
Start Date/Time:	01-26-2011 1130	Start Date/Time:	01-26-2011 1132	Start Date/Time:	01-26-2011 1128	Start Date/Time:	01-26-2011 1116
Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-27
Stop Date/Time:	01-26-2011 01:17:25	Stop Date/Time:	01-26-2011 1939	Stop Date/Time:	01-26-2011 1949	Stop Date/Time:	01-26-2011 1911
Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-2
Sample ID:	LS-IA-01-2	Sample ID:	LS-IA-02-2	Sample ID:	LS-IA-03-2	Sample ID:	LS-AA-04-2

Other Sampling Information:

Story/Level:	first	Story/Level:	first	Story/Level:	first	Direction from Building:	West.
Room:	Kitchen	Room:	Break room with SS-05	Room:	office	Distance from Building:	~10'
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	window door	Potential Vapor Entry Points:	window	Distance from Roadway:	~150'
Floor Surface:	linoleum	Floor Surface:	rubber over concrete	Floor Surface:	tile	Ground Surface:	snow
Noticable Odor:	none	Noticable Odor:	none	Noticable Odor:	none	Noticable Odor:	none
PID Reading (ppb):	325	PID Reading (ppb):	4600	PID Reading (ppb):	5650	PID Reading (ppb):	<0.1
Intake Height:	~4.5'	Intake Height:	~5'	Intake Height:	~4'	Intake Height Above Ground Surface:	~3'
Indoor Air Temp:	70°F	Indoor Air Temp:	70°F	Indoor Air Temp:	70°F	Intake Tubing Used?	no

Comments/Location Sketch:

Refer to figure 1 for location sketch.



511 Congress Street, Portland, ME 04101

FIGURE 4-19
INDOOR AIR SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - Liberty Street LOCATION ID: LS DATE: 01-26-2011
 PROJECT NO./TASK NO.: 3410100802 CLIENT: Honeywell
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw
 WEATHER CONDITIONS (AM): 30°F, partly cloudy SAMPLER SIGNATURE: [Signature]
 WEATHER CONDITIONS (PM): 20°F, dark CHECKED BY: BSS DATE: 3/31/2011

SUMMA Canister Record Information

INDOOR AIR		INDOOR AIR		INDOOR AIR		ASSOCIATED AMBIENT AIR	
Flow Regulator Number:	<u>3933</u>	Flow Regulator Number:	<u>5196</u>	Flow Regulator Number:	<u>5201</u>	Flow Regulator Number:	<u>2925</u>
Flow Rate (mL/min):	<u>~13</u>	Flow Rate (mL/min):	<u>~10</u>	Flow Rate (mL/min):	<u>~12</u>	Flow Rate (mL/min):	<u>~10</u>
Canister Serial Number:	<u>4022</u>	Canister Serial Number:	<u>5164</u>	Canister Serial Number:	<u>2598</u>	Canister Serial Number:	<u>2708</u>
Start Date/Time:	<u>01-26-2011 1126</u>	Start Date/Time:	<u>01-26-2011 1150</u>	Start Date/Time:	<u>01-26-2011 1140</u>	Start Date/Time:	<u>01-26-2011 1116</u>
Start Pressure ("Hg):	<u>-30</u>	Start Pressure ("Hg):	<u>-30</u>	Start Pressure ("Hg):	<u>-27</u>	Start Pressure ("Hg):	<u>-27</u>
Stop Date/Time:	<u>01-26-2011 1901</u>	Stop Date/Time:	<u>01-26-2011 2003</u>	Stop Date/Time:	<u>01-26-2011 1909</u>	Stop Date/Time:	<u>01-26-2011 1911</u>
Stop Pressure ("Hg):	<u>-5</u>	Stop Pressure ("Hg):	<u>-10</u>	Stop Pressure ("Hg):	<u>-5</u>	Stop Pressure ("Hg):	<u>-2</u>
Sample ID:	<u>LS-IA-04-2</u>	Sample ID:	<u>LS-IA-06-2</u>	Sample ID:	<u>LS-IA-07-2</u>	Sample ID:	<u>LS-AA-01-2</u>

Other Sampling Information:

Story/Level:	<u>first</u>	Story/Level:	<u>first</u>	Story/Level:	<u>first</u>	Direction from Building:	<u>west</u>
Room:	<u>QA Lab Office</u>	Room:	<u>office</u>	Room:	<u>color mix Room/Hall</u>	Distance from Building:	<u>~10'</u>
Potential Vapor Entry Points:	<u>none</u>	Potential Vapor Entry Points:	<u>window</u>	Potential Vapor Entry Points:	<u>loading door</u>	Distance from Roadway:	<u>~150'</u>
Floor Surface:	<u>linoleum</u>	Floor Surface:	<u>tile</u>	Floor Surface:	<u>rubber on concrete</u>	Ground Surface:	<u>snow</u>
Noticable Odor:	<u>none</u>	Noticable Odor:	<u>yes</u>	Noticable Odor:	<u>yes</u>	Noticable Odor:	<u>none</u>
PID Reading (ppb):	<u>8443</u>	PID Reading (ppb):	<u>5200</u>	PID Reading (ppb):	<u>5509</u>	PID Reading (ppb):	<u>40.1</u>
Intake Height:	<u>~4'</u>	Intake Height:	<u>~5'</u>	Intake Height:	<u>~5'</u>	Intake Height Above Ground Surface:	<u>~3'</u>
Indoor Air Temp:	<u>70°F</u>	Indoor Air Temp:	<u>70°F</u>	Indoor Air Temp:	<u>-68°F</u>	Intake Tubing Used?	<u>no</u>

Comments/Location Sketch:

Refer to figure 1 for location sketch.



511 Congress Street, Portland, ME 04101

FIGURE 4-19

INDOOR AIR SAMPLING RECORD

NYSDEC QUALITY ASSURANCE PROJECT PLAN

SUB SLAB AND INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - Liberty Street Site LOCATION ID: LS DATE: 01-26-2011
 PROJECT NO./TASK NO.: 3410100802, 2100 CLIENT: Honeywell
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Sheaw
 WEATHER CONDITIONS (AM): 30°F, partly cloudy SAMPLER SIGNATURE: [Signature]
 WEATHER CONDITIONS (PM): 30°F, dark CHECKED BY: BJS DATE: 3/31/2011

SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE	
Flow Regulator Number:	5180	Flow Regulator Number:	3946	Flow Regulator Number:	5186	Flow Regulator Number:	3447
Flow Rate (mL/min):	~10	Flow Rate (mL/min):	~10	Flow Rate (mL/min):	~15	Flow Rate (mL/min):	~12
Canister Serial Number:	4465	Canister Serial Number:	2624	Canister Serial Number:	2644	Canister Serial Number:	4240
Start Date/Time:	01-26-2011 1130	Start Date/Time:	01-26-2011 1130	Start Date/Time:	01-26-2011 1202	Start Date/Time:	01-26-2011 1127
Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-30	Start Pressure ("Hg):	-28	Start Pressure ("Hg):	-30
Stop Date/Time:	01-26-2011 1956	Stop Date/Time:	01-26-2011 1956	Stop Date/Time:	01-26-2011 1907	Stop Date/Time:	01-26-2011 1901
Stop Pressure ("Hg):	-4	Stop Pressure ("Hg):	-10	Stop Pressure ("Hg):	-1	Stop Pressure ("Hg):	-5
Sample ID:	LS-SS-01-2	Sample ID:	LS-SS-01-2-b	Sample ID:	LS-SS-02-2	Sample ID:	LS-SS-04-2

Other Sampling Information:

Room:	electrical	Room:	electrical	Room:	warehouse	Room:	QA Lab office
Floor Slab Thickness:	~6"	Floor Slab Thickness:	~6"	Floor Slab Thickness:	~4"	Floor Slab Thickness:	~6"
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	cracks	Potential Vapor Entry Points:	none
Floor Surface:	concrete	Floor Surface:	concrete	Floor Surface:	asphalt	Floor Surface:	concrete
Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA
PID Reading (ppb):	1300	PID Reading (ppb):	1300	PID Reading (ppb):	780	PID Reading (ppb):	1505
Intake Depth:	~7.5"	Intake Depth:	~7.5"	Intake Depth:	~7.5"	Intake Depth:	~7.5"
Helium Test Conducted?	NO	Helium Test Conducted?	NO	Helium Test Conducted?	NA	Helium Test Conducted?	NO

Comments/Location Sketch:

Refer to Figure 1 for location sketch



511 Congress Street, Portland, ME 04101

SUB SLAD AND INDOOR AIR SAMPLING RECORD

PROJECT NAME: Former Furon Sites - Liberty Street Site LOCATION ID: LS DATE: 01-26-2011
 PROJECT NO./TASK NO.: 3410100802, 2100 CLIENT: Honeywell
 PROJECT LOCATION: Hoosick Falls, New York SAMPLER NAME: Brandon Shaw
 WEATHER CONDITIONS (AM): 30°F, partly cloudy SAMPLER SIGNATURE: [Signature]
 WEATHER CONDITIONS (PM): 31°F, dark CHECKED BY: BJS DATE: 3/31/2011

SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE		SUB-SLAB SOIL VAPOR SAMPLE	
Flow Regulator Number:	<u>4516</u>	Flow Regulator Number:	<u>5204</u>	Flow Regulator Number:	<u>2666</u>	Flow Regulator Number:	
Flow Rate (mL/min):	<u>~10</u>	Flow Rate (mL/min):	<u>~13</u>	Flow Rate (mL/min):	<u>~10</u>	Flow Rate (mL/min):	
Canister Serial Number:	<u>3833</u>	Canister Serial Number:	<u>4123</u>	Canister Serial Number:	<u>3527</u>	Canister Serial Number:	
Start Date/Time:	<u>01-26-2011 1145</u>	Start Date/Time:	<u>01-26-2011 1155</u>	Start Date/Time:	<u>01-26-2011 1207</u>	Start Date/Time:	<u>BJS 03/31/2011</u>
Start Pressure ("Hg):	<u>-30</u>	Start Pressure ("Hg):	<u>-30</u>	Start Pressure ("Hg):	<u>-26</u>	Start Pressure ("Hg):	
Stop Date/Time:	<u>01-26-2011 1945</u>	Stop Date/Time:	<u>01-26-2011 1912</u>	Stop Date/Time:	<u>01-26-2011 1850</u>	Stop Date/Time:	
Stop Pressure ("Hg):	<u>-4</u>	Stop Pressure ("Hg):	<u>-5</u>	Stop Pressure ("Hg):	<u>-5</u>	Stop Pressure ("Hg):	
Sample ID:	<u>LS-SS-06-2</u>	Sample ID:	<u>LS-SS-07-2</u>	Sample ID:	<u>LS-SS-05-2</u>	Sample ID:	

Other Sampling Information:

Room:	<u>office</u>	Room:	<u>Hallway</u>	Room:	<u>office with IAQ</u>	Room:	<u>BJS 03/31/2011</u>
Floor Slab Thickness:	<u>~6"</u>	Floor Slab Thickness:	<u>~7"</u>	Floor Slab Thickness:	<u>~6"</u>	Floor Slab Thickness:	
Potential Vapor Entry Points:	<u>none</u>	Potential Vapor Entry Points:	<u>none</u>	Potential Vapor Entry Points:	<u>none</u>	Potential Vapor Entry Points:	
Floor Surface:	<u>tile</u>	Floor Surface:	<u>Rubber on concrete</u>	Floor Surface:	<u>ceruleum</u>	Floor Surface:	
Noticable Odor:	<u>per styrene</u>	Noticable Odor:	<u>NA</u>	Noticable Odor:	<u>NA</u>	Noticable Odor:	
PID Reading (ppb):	<u>980</u>	PID Reading (ppb):	<u>1132</u>	PID Reading (ppb):	<u>780</u>	PID Reading (ppb):	
Intake Depth:	<u>~7.5"</u>	Intake Depth:	<u>~7.5"</u>	Intake Depth:	<u>~7.5"</u>	Intake Depth:	
Helium Test Conducted?	<u>no</u>	Helium Test Conducted?	<u>no</u>	Helium Test Conducted?	<u>no</u>	Helium Test Conducted?	

Comments/Location Sketch:

Refer to Figure 1 for location sketch



511 Congress Street, Portland, ME 04101

1 Liberty Street
 NEW YORK STATE DEPARTMENT OF HEALTH
 INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
 CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Ryan Markowski Date/Time Prepared 1/25/11 @ 1500
 Preparer's Affiliation MALTEL Phone No. 207-831-2131
 Purpose of Investigation SOIL Vapor Intrusion Investigation

1. OCCUPANT:

Interviewed: Y N
 Last Name: BEAUMONT First Name: PJ
 Address: 1 Liberty Street
 County: Rensselaer ↳ Hoosick Falls, NY
 Home Phone: - Office Phone: -
 Number of Occupants/persons at this location - Age of Occupants Various

2. OWNER OR LANDLORD: (Check if same as occupant NA)

Interviewed: Y N
 Last Name: - First Name: -
 Address: -
 County: - 1/26/11 Rem
 Home Phone: - Office Phone: -

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
 Industrial

School
 Church

Commercial/Multi-use
 Other: -

Plant/Factory

1

✓
 HAs
 03-31-2011

If the property is residential, type? (Circle appropriate response)

Liberty street

Ranch 2-Family 3-Family
 Raised Ranch Split Level Colonial
 Cape Cod Contemporary Mobile Home
 Duplex Apartment House Townhouses/Condos
 Modular Log Home Other: _____

If multiple units, how many? 1/2

If the property is commercial, type?

Business Type(s) Plastics + Conting Tables

Does it include residences (i.e., multi-use)? Y/N N If yes, how many? NA

Other characteristics:

Number of floors 1

Building age 1948

Is the building insulated? Y/N N

How air tight? Tight / Average Not Tight

most is not

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

✓
 PS
 3-11-201

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

Block

a. Above grade construction: wood frame concrete stone brick

b. Basement type: full Block crawlspace slab other _____

c. Basement floor: NO concrete BASEMENT dirt stone other _____

d. Basement floor: uncovered covered covered with _____

e. Concrete floor: unsealed sealed sealed with _____

f. Foundation walls: poured block stone other _____

g. Foundation walls: unsealed sealed sealed with _____

h. The basement is: ~~wet damp dry moldy~~ RCM 1/26/11

i. The basement is: ~~finished unfinished partially finished~~ RCM 1/26/11

j. Sump present? Y N

k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

See updated map/figures to identify points

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation

Space Heaters

Electric baseboard RCM 1/26/11

Heat pump

Stream radiation

Wood stove

Hot water baseboard

Radiant floor

Outdoor wood boiler

Other

Propane forced steam
Propane Direct fire
air make-up

The primary type of fuel used is:

Natural Gas

Electric

Wood

Fuel Oil

Propane

Coal

Kerosene

Solar

Domestic hot water tank fueled by: Propane

Boiler/furnace located in:

Basement

Outdoors

Main Floor

Other _____

Air conditioning:

Central Air

Window units

Open Windows

None

✓
BAS
03-31-2011

Are there air distribution ducts present?

4 Some more
☒ Y ☐ N

Liberty St.

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Ductwork appears to be functioning properly
↳ sorted, tight, & welded together

7. OCCUPANCY

Is basement/lowest level occupied?

☒ Full-time

☐ Occasionally

☐ Seldom

☐ Almost Never

Level

General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement

1st Floor

Offices, Breakroom, Conference, Production, Bathrooms, + warehouse

2nd Floor

3rd Floor

REM

4th Floor

1/26/11

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

☐ Y ☒ N

b. Does the garage have a separate heating unit?

☐ Y ☐ N ☒ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

☐ Y ☐ N ☒ NA

Please specify _____

d. Has the building ever had a fire?

☒ Y ☐ N When? NOT structural, 2010

e. Is a kerosene or unvented gas space heater present?

☒ Y ☐ N Where? Direct fired propane furnace

f. Is there a workshop or hobby/craft area?

☒ Y ☐ N Where & Type? Plant / Factory

g. Is there smoking in the building?

☐ Y ☒ N How frequently? _____

h. Have cleaning products been used recently?

☒ Y ☐ N When & Type? Toluene, Regular basis

i. Have cosmetic products been used recently?

☒ Y ☐ N When & Type? _____

✓
BAS
03-31-2011

Liberty St.

j. Has painting/staining been done in the last 6 months?

☒ Y ☐ N Where & When? Dec. 2010

k. Is there new carpet, drapes or other textiles?

☒ Y ☐ N Where & When? Dec. 2010 - 1 room

l. Have air fresheners been used recently?

Y ☒ N When & Type? _____

m. Is there a kitchen exhaust fan?

Y ☒ N If yes, where vented? _____

n. Is there a bathroom exhaust fan?

☒ Y ☐ N If yes, where vented? _____

o. Is there a clothes dryer?

Y ☒ N If yes, is it vented outside? Y / N

p. Has there been a pesticide application?

☒ Y ☐ N When & Type? Summer 2010
around Building

Are there odors in the building?

If yes, please describe: _____

☒ Y ☐ N

Do any of the building occupants use solvents at work?

☒ Y ☐ N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used?

Acetone + Toluene + Various Types
of Degreasers

If yes, are their clothes washed at work?

☒ Y ☐ N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

No

☒ UnknownIs there a radon mitigation system for the building/structure? Y ☒ N Date of Installation: _____

Is the system active or passive?

Active/Passive

9. WATER AND SEWAGE

Water Supply:

☒ Public Water

Drilled Well

Driven Well

Dug Well

Other: _____

Sewage Disposal:

☒ Public Sewer

Septic Tank

Leach Field

Dry Well

Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home Rem relocate to friends/family

relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? 1/26/11

Y / N

d. Relocation package provided and explained to residents?

Y / N

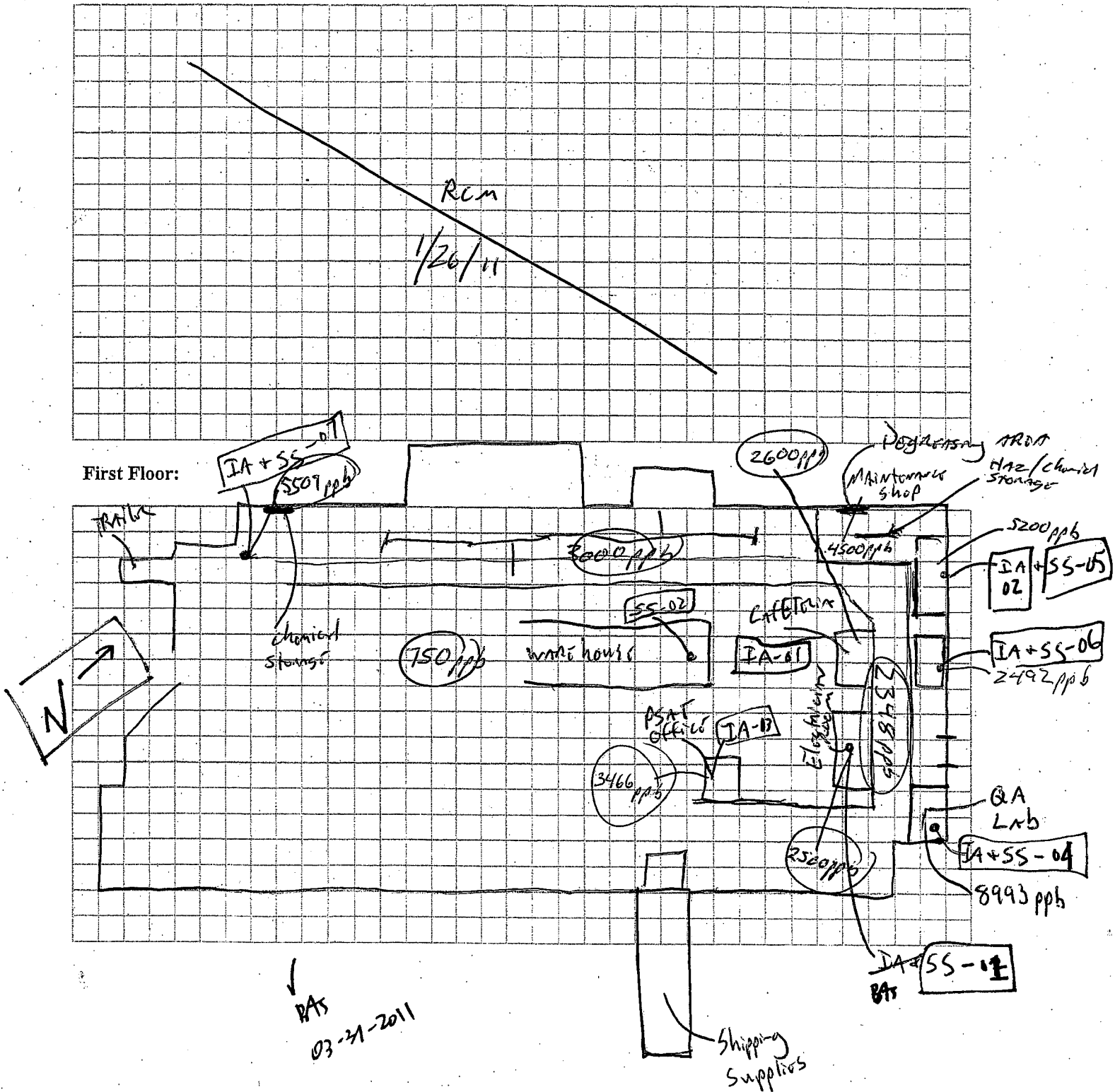
✓
PAs
03-31-2011

Liberty St.

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

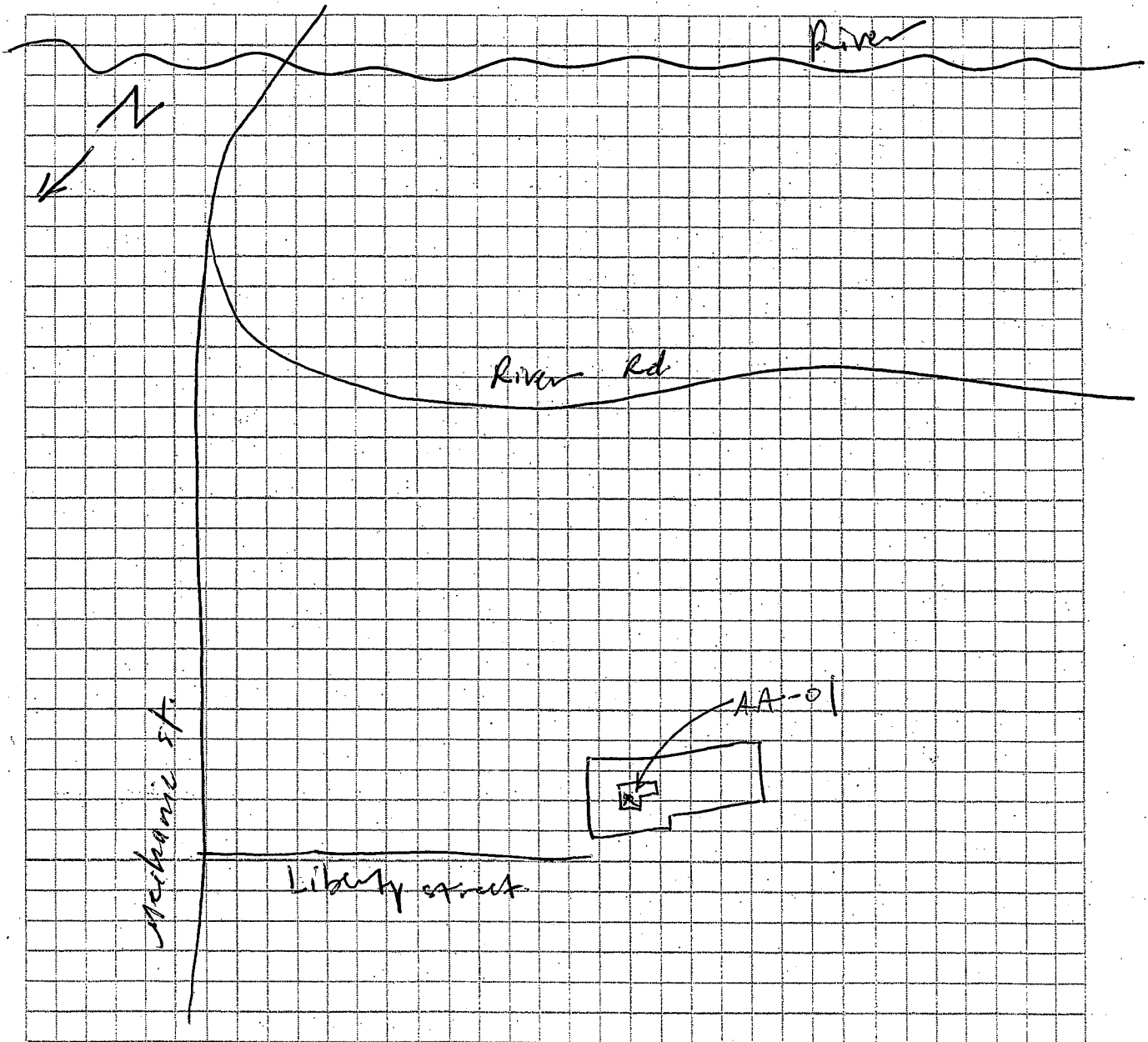


Liberty st

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



✓
SJS
03-27-2011

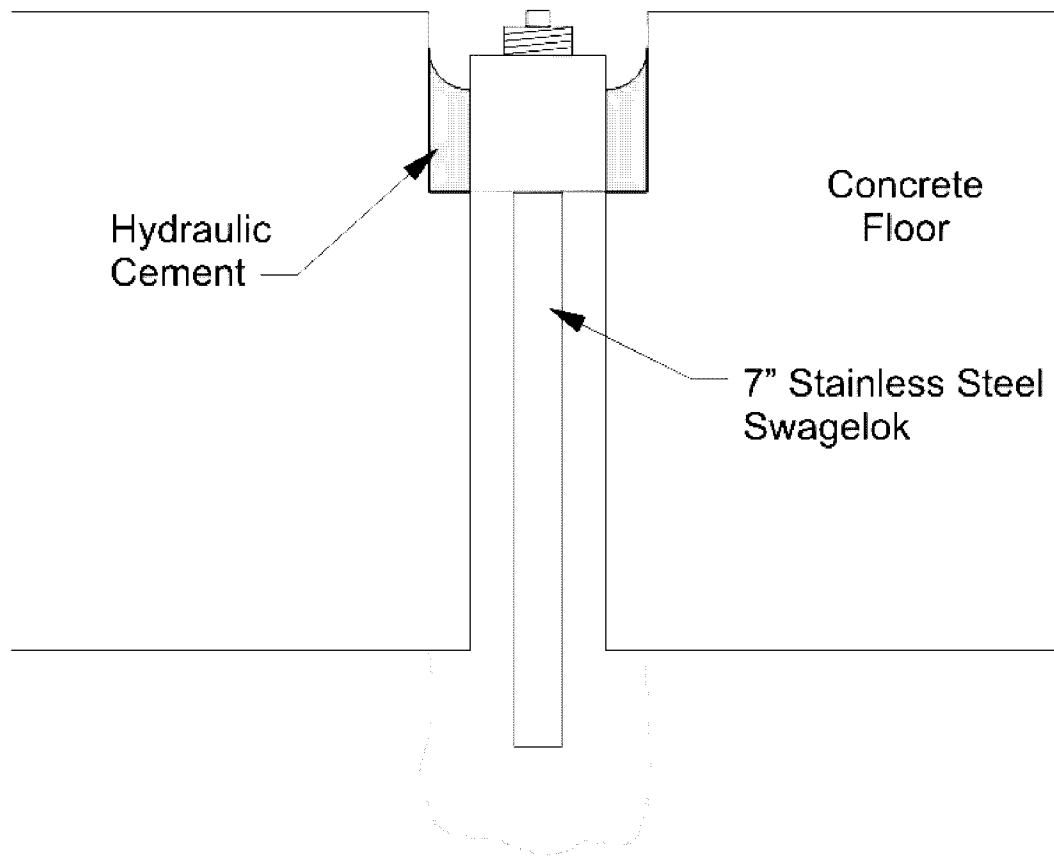
Make & Model of field instrument used: ppb Rte 3000 Pint

[illegible]

**** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.**

ATTACHMENT B

PERMANENT SUB-SLAB SOIL VAPOR POINT DIAGRAM



Permanent Sub Slab Soil Vapor Point

PORT2011013b

ATTACHMENT C
DATA USABILITY SUMMARY REPORT

**DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING
FORMER HONEYWELL SITE- LIBERTY ST
HOOSICK FALLS, NEW YORK**

1.0 INTRODUCTION

Indoor air and sub-slab vapor samples were collected at the Former Honeywell Hoosick Falls – Liberty Street Site (Site) in Hoosick Falls, New York in January 2011 and submitted for off-site laboratory analysis. Samples were analyzed by TestAmerica Laboratories located in South Burlington, Vermont (TAL-BUR). Results were reported in sample delivery group (SDG) 220-3615.

A listing of samples included in this Data Usability Summary Report (DUSR) is presented in Table 1. A summary of the final analytical results is presented in Table 2. A summary of samples qualified during this review is presented in Table 3. Samples were analyzed by the following methods:

- Volatile organic compounds (VOCs) by USEPA Method TO-15

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005). Results were reported in units of ppbv and $\mu\text{g}/\text{m}^3$ in the lab reports. The unit used in reporting data for this project is $\mu\text{g}/\text{m}^3$.

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2010). USEPA Region II quality control (QC) limits were used during the data evaluation unless noted otherwise (USEPA, 2006). The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and control sample recovery), data transcription, electronic data reporting, calculations, and data qualification.

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reporting limit

J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs)

VOC - Blanks

Methylene chloride was observed in the method blank associated with a subset of samples at a concentration of $0.57 \mu\text{g}/\text{m}^3$. An action level of $2.85 \mu\text{g}/\text{m}^3$ was established at five times the concentration reported in the blank. Methylene chloride detections in associated samples LS-SS-

01-2-D, LS-SS-02-2, LS-SS-04-2, LS-SS-05-2, and LS-SS-06-2 were below the established action levels and were qualified as non-detect (U) at the reporting limit.

Field Sample ID	QC Code	Lab ID	Compound	Dilution Factor	Final Result ($\mu\text{g}/\text{m}^3$)	Final Qual	Lab Result ($\mu\text{g}/\text{m}^3$)	Lab Qual
LS-SS-01-2-D	FD	200-3615-22	Methylene Chloride	8	14	U	5.4	JB
LS-SS-02-2	FS	200-3615-23	Methylene Chloride	1	1.7	U	0.54	JB
LS-SS-04-2	FS	200-3615-24	Methylene Chloride	1	1.7	U	0.63	JB
LS-SS-05-2	FS	200-3615-25	Methylene Chloride	1	1.7	U	0.69	JB
LS-SS-06-2	FS	200-3615-26	Methylene Chloride	1	1.7	U	0.80	JB

VOC - Sample Reporting

Dilution analyses were performed on the following samples due to elevated concentrations of target compounds. Reporting limits for target compounds that were not detected in samples are elevated due to dilution.

Field Sample ID	QC Code	Lab ID	Dilution Factor
LS-IA-01-2	FS	200-3615-14	4
LS-IA-02-2	FS	200-3615-15	20
LS-IA-03-2	FS	200-3615-16	10
LS-IA-04-2	FS	200-3615-18	40.5
LS-IA-06-2	FS	200-3615-19	2
LS-IA-07-2	FS	200-3615-20	10
LS-SS-01-2	FS	200-3615-21	8
LS-SS-01-2-D	FD	200-3615-22	8
LS-SS-07-2	FD	200-3615-27	4.26

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

U.S. Environmental Protection Agency (USEPA), 2006. "Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15"; USEPA Region II; HW-31; Revision #4; October 2006.

Data Validation: Bradley B. LaForest, NRCC-EAC


Date: 3/23/11

Reviewed by Chris Ricardi, NRCC-EAC

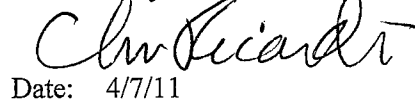

Date: 4/7/11

TABLE 1
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

SDG	Sample ID	Lab ID	Sample Date	Sample Type	Method
200-3615	LS-IA-01-2	200-3615-14	1/26/2011	REG	TO-15
200-3615	LS-IA-02-2	200-3615-15	1/26/2011	REG	TO-15
200-3615	LS-IA-03-2	200-3615-16	1/26/2011	REG	TO-15
200-3615	LS-AA-01-2	200-3615-17	1/26/2011	REG	TO-15
200-3615	LS-IA-04-2	200-3615-18	1/26/2011	REG	TO-15
200-3615	LS-IA-06-2	200-3615-19	1/26/2011	REG	TO-15
200-3615	LS-IA-07-2	200-3615-20	1/26/2011	REG	TO-15
200-3615	LS-SS-01-2	200-3615-21	1/26/2011	REG	TO-15
200-3615	LS-SS-01-2-D	200-3615-22	1/26/2011	FD	TO-15
200-3615	LS-SS-02-2	200-3615-23	1/26/2011	REG	TO-15
200-3615	LS-SS-04-2	200-3615-24	1/26/2011	REG	TO-15
200-3615	LS-SS-05-2	200-3615-25	1/26/2011	REG	TO-15
200-3615	LS-SS-06-2	200-3615-26	1/26/2011	REG	TO-15
200-3615	LS-SS-07-2	200-3615-27	1/26/2011	REG	TO-15

TABLE 2
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

Field Sample ID Location Sample Date			LS-AA-01-2 AA-01-2 1/26/2011	LS-IA-01-2 IA-01-2 1/26/2011	LS-IA-02-2 IA-02-2 1/26/2011	LS-IA-03-2 IA-03-2 1/26/2011	LS-IA-04-2 IA-04-2 1/26/2011	LS-IA-06-2 IA-06-2 1/26/2011	LS-IA-07-2 IA-07-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	1,1,1-Trichloroethane	0.27 U	1.1 U	5.5 U	2.7 U	11 U	0.55 U	2.7 U
ug/m3	TO15	1,1,2,2-Tetrachloroethane	0.34 U	1.4 U	6.9 U	3.4 U	14 U	0.69 U	3.4 U
ug/m3	TO15	1,1,2-Trichloroethane	0.27 U	1.1 U	5.5 U	2.7 U	11 U	0.55 U	2.7 U
ug/m3	TO15	1,1-Dichloroethane	0.053 U	0.21 U	1.1 U	0.53 U	2.1 U	0.11 U	0.53 U
ug/m3	TO15	1,1-Dichloroethene	0.059 U	0.24 U	1.2 U	0.59 U	2.4 U	0.12 U	0.59 U
ug/m3	TO15	1,2-Dibromoethane	0.092 U	0.37 U	1.8 U	0.92 U	3.7 U	0.18 U	0.92 U
ug/m3	TO15	1,2-Dichloroethane	0.061 U	0.24 U	1.2 U	0.61 U	2.5 U	1.3 J	0.61 U
ug/m3	TO15	1,2-Dichloroethene, Total	0.4 U	1.6 U	7.9 U	4 U	16 U	0.79 U	4 U
ug/m3	TO15	1,2-Dichloropropane	0.074 U	0.3 U	1.5 U	0.74 U	3 U	0.15 U	0.74 U
ug/m3	TO15	1,2-Dichlorotetrafluoroethane	0.084 U	0.34 U	11 J	0.84 U	3.4 U	0.17 U	0.84 U
ug/m3	TO15	1,3,5-Trimethylbenzene	0.31 U	1.3 U	6.3 U	3.1 U	13 U	0.63 U	3.1 U
ug/m3	TO15	1,3-Butadiene	0.06 U	0.24 U	1.2 U	0.6 U	2.4 U	0.12 U	0.6 U
ug/m3	TO15	2,2,4-Trimethylpentane	0.061 U	0.24 U	1.2 U	0.61 U	2.5 U	0.12 U	0.61 U
ug/m3	TO15	3-Chloropropene	0.091 U	0.36 U	1.8 U	0.91 U	3.7 U	0.18 U	0.91 U
ug/m3	TO15	4-Ethyltoluene	0.31 U	1.3 U	6.3 U	3.1 U	13 U	0.63 U	3.1 U
ug/m3	TO15	Benzene	1.1	2.7	4.6 J	4.9 J	6.9 J	1.6	5.4 J
ug/m3	TO15	Bromodichloromethane	0.34 U	1.3 U	6.7 U	3.4 U	14 U	0.67 U	3.4 U
ug/m3	TO15	Bromoethene(Vinyl Bromide)	0.22 U	0.87 U	4.4 U	2.2 U	8.9 U	0.44 U	2.2 U
ug/m3	TO15	Bromoform	0.52 U	2.1 U	10 U	5.2 U	21 U	1 U	5.2 U
ug/m3	TO15	Bromomethane	0.054 U	0.22 U	1.1 U	0.54 U	2.2 U	0.11 U	0.54 U
ug/m3	TO15	Carbon tetrachloride	0.5 J	1.3 U	6.3 U	3.1 U	13 U	0.63 U	3.1 U
ug/m3	TO15	Chloroethane	0.26 U	1.1 U	5.3 U	2.6 U	11 U	0.53 U	2.6 U
ug/m3	TO15	Chloroform	0.24 U	0.98 U	4.9 U	2.4 U	9.9 U	0.49 U	2.4 U
ug/m3	TO15	cis-1,2-Dichloroethene	0.2 U	0.79 U	4 U	2 U	8 U	0.4 U	2 U
ug/m3	TO15	cis-1,3-Dichloropropene	0.23 U	0.91 U	4.5 U	2.3 U	9.2 U	0.45 U	2.3 U
ug/m3	TO15	Cyclohexane	0.17 J	0.82 J	0.83 U	1.7 J	39	0.35 J	1.7 J
ug/m3	TO15	Dibromochloromethane	0.43 U	1.7 U	8.5 U	4.3 U	17 U	0.85 U	4.3 U
ug/m3	TO15	Dichlorodifluoromethane	2.9	3.1 J	10 J	0.59 U	2.4 U	3.1 J	0.59 U
ug/m3	TO15	Ethylbenzene	1.5	11	31	48	46	4.2	32
ug/m3	TO15	m,p-Xylene	5	40	110	170	160	15	110
ug/m3	TO15	Methyl tert-butyl ether	0.047 U	0.19 U	0.94 U	0.47 U	1.9 U	0.094 U	0.47 U

TABLE 2
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

Field Sample ID Location Sample Date			LS-AA-01-2 AA-01-2 1/26/2011	LS-IA-01-2 IA-01-2 1/26/2011	LS-IA-02-2 IA-02-2 1/26/2011	LS-IA-03-2 IA-03-2 1/26/2011	LS-IA-04-2 IA-04-2 1/26/2011	LS-IA-06-2 IA-06-2 1/26/2011	LS-IA-07-2 IA-07-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	Methylene Chloride	0.46 J	0.42 U	2.1 U	1 U	4.2 U	0.71 J	1 U
ug/m3	TO15	n-Heptane	0.31 J	4	2.2 U	2 J	18 J	0.7 J	1.9 J
ug/m3	TO15	n-Hexane	0.64 J	6.5	20	48	16 J	2.5	19
ug/m3	TO15	Tetrachloroethene	7.7	59	2200	5.5 J	4.7 U	22	530
ug/m3	TO15	Toluene	35	290	1300	750	5000	100	780
ug/m3	TO15	trans-1,2-Dichloroethene	0.2 U	0.79 U	4 U	2 U	8 U	0.4 U	2 U
ug/m3	TO15	trans-1,3-Dichloropropene	0.29 U	1.2 U	5.8 U	2.9 U	12 U	0.58 U	2.9 U
ug/m3	TO15	Trichloroethene	0.075 U	2.8 J	45	0.75 U	3 U	0.57 J	7.7 J
ug/m3	TO15	Trichlorofluoromethane	1.3	1.5 J	5.6 U	2.8 U	11 U	1.4 J	2.8 U
ug/m3	TO15	Vinyl chloride	0.064 U	0.26 U	1.3 U	0.64 U	2.6 U	0.13 U	0.64 U
ug/m3	TO15	Xylene (total)	6.1	49	130	200	200	18	130
ug/m3	TO15	Xylene, o-	1.1	8.7	23	34	37	3.4	23

TABLE 2
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

Field Sample ID Location Sample Date			LS-SS-01-2 SS-01-2 1/26/2011	LS-SS-01-2-D SS-01-2 1/26/2011	LS-SS-02-2 SS-02-2 1/26/2011	LS-SS-04-2 SS-04-2 1/26/2011	LS-SS-05-2 SS-05-2 1/26/2011	LS-SS-06-2 SS-06-2 1/26/2011	LS-SS-07-2 SS-07-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	1,1,1-Trichloroethane	9	8.7	0.27 U	0.27 U	12	0.59 J	1.4 J
ug/m3	TO15	1,1,2,2-Tetrachloroethane	2.7 U	2.7 U	0.34 U	0.34 U	0.34 U	0.34 U	1.5 U
ug/m3	TO15	1,1,2-Trichloroethane	2.2 U	2.2 U	0.27 U	0.27 U	0.27 U	0.27 U	1.2 U
ug/m3	TO15	1,1-Dichloroethane	0.42 U	0.42 U	0.053 U	0.053 U	0.053 U	0.053 U	0.22 U
ug/m3	TO15	1,1-Dichloroethene	0.48 U	0.48 U	0.059 U	0.059 U	0.059 U	0.059 U	0.25 U
ug/m3	TO15	1,2-Dibromoethane	0.74 U	0.74 U	0.092 U	0.092 U	0.092 U	0.092 U	0.39 U
ug/m3	TO15	1,2-Dichloroethane	0.49 U	0.49 U	0.061 U	0.061 U	0.061 U	0.061 U	0.26 U
ug/m3	TO15	1,2-Dichloroethene, Total	22	21	0.51 J	0.4 U	0.4 U	0.4 U	110
ug/m3	TO15	1,2-Dichloropropane	0.59 U	0.59 U	0.074 U	0.074 U	0.074 U	0.074 U	0.31 U
ug/m3	TO15	1,2-Dichlorotetrafluoroethane	0.67 U	0.67 U	0.084 U	0.084 U	0.084 U	0.084 U	0.36 U
ug/m3	TO15	1,3,5-Trimethylbenzene	2.5 U	2.5 U	0.31 U	3.6	2.2	1.8	1.3 U
ug/m3	TO15	1,3-Butadiene	0.48 U	0.48 U	0.06 U	0.06 U	0.06 U	0.06 U	0.25 U
ug/m3	TO15	2,2,4-Trimethylpentane	0.49 U	0.49 U	0.28 J	0.061 U	0.061 U	0.061 U	0.26 U
ug/m3	TO15	3-Chloropropene	0.73 U	0.73 U	0.091 U	0.091 U	0.091 U	0.091 U	0.39 U
ug/m3	TO15	4-Ethyltoluene	2.5 U	2.5 U	0.31 U	1.2	2.3	0.49 J	1.3 U
ug/m3	TO15	Benzene	1.3 U	1.3 U	1.3	0.52 J	1.1	0.54 J	0.68 U
ug/m3	TO15	Bromodichloromethane	11	9.3 J	0.34 U	0.34 U	0.34 U	0.34 U	1.4 U
ug/m3	TO15	Bromoethene(Vinyl Bromide)	1.7 U	1.7 U	0.22 U	0.22 U	0.22 U	0.22 U	0.93 U
ug/m3	TO15	Bromoform	4.1 U	4.1 U	0.52 U	0.52 U	0.52 U	0.52 U	2.2 U
ug/m3	TO15	Bromomethane	0.43 U	0.43 U	0.054 U	0.054 U	0.054 U	0.054 U	0.23 U
ug/m3	TO15	Carbon tetrachloride	2.5 U	2.5 U	0.49 J	0.44 J	0.38 J	0.33 J	1.3 U
ug/m3	TO15	Chloroethane	2.1 U	2.1 U	0.26 U	0.26 U	0.26 U	0.26 U	1.1 U
ug/m3	TO15	Chloroform	26	24	0.24 U	0.24 U	0.24 U	0.24 U	1 U
ug/m3	TO15	cis-1,2-Dichloroethene	20	19	0.51 J	0.2 U	0.2 U	0.2 U	110
ug/m3	TO15	cis-1,3-Dichloropropene	1.8 U	1.8 U	0.23 U	0.23 U	0.23 U	0.23 U	0.97 U
ug/m3	TO15	Cyclohexane	0.33 U	0.33 U	0.31 J	0.21 J	0.3 J	0.35 J	0.18 U
ug/m3	TO15	Dibromochloromethane	3.4 U	3.4 U	0.43 U	0.43 U	0.43 U	0.43 U	1.8 U
ug/m3	TO15	Dichlorodifluoromethane	0.47 U	0.47 U	3	3.1	2.9	2.9	3.1 J
ug/m3	TO15	Ethylbenzene	0.49 U	0.49 U	0.71 J	0.59 J	3.4	1.9	0.26 U
ug/m3	TO15	m,p-Xylene	0.8 U	0.8 U	2.2	1.9 J	3.8	9.9	0.43 U
ug/m3	TO15	Methyl tert-butyl ether	0.37 U	0.37 U	0.047 U	0.047 U	0.047 U	0.047 U	0.2 U

TABLE 2
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB VAPOR SAMPLING (µg/m3)
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

Field Sample ID Location Sample Date			LS-SS-01-2 SS-01-2 1/26/2011	LS-SS-01-2-D SS-01-2 1/26/2011	LS-SS-02-2 SS-02-2 1/26/2011	LS-SS-04-2 SS-04-2 1/26/2011	LS-SS-05-2 SS-05-2 1/26/2011	LS-SS-06-2 SS-06-2 1/26/2011	LS-SS-07-2 SS-07-2 1/26/2011
Units	Method	Parameter Name							
ug/m3	TO15	Methylene Chloride	0.83 U	14 U	1.7 U	1.7 U	1.7 U	1.7 U	0.44 U
ug/m3	TO15	n-Heptane	0.89 U	0.89 U	0.47 J	0.7 J	1.4	1.3	0.47 U
ug/m3	TO15	n-Hexane	0.65 U	0.65 U	0.57 J	0.56 J	0.97	0.49 J	0.35 U
ug/m3	TO15	Tetrachloroethene	14	12	7.5	2.6	160	13	17
ug/m3	TO15	Toluene	5.2 J	4.2 J	14	9.2	14	13	3.8
ug/m3	TO15	trans-1,2-Dichloroethene	1.7 J	1.6 J	0.2 U	0.2 U	0.2 U	0.2 U	0.84 U
ug/m3	TO15	trans-1,3-Dichloropropene	2.3 U	2.3 U	0.29 U	0.29 U	0.29 U	0.29 U	1.2 U
ug/m3	TO15	Trichloroethene	1100	980	4.5	0.75 J	40	2.4	560
ug/m3	TO15	Trichlorofluoromethane	2.2 U	2.2 U	1.5	1.5	1.5	1.5	1.6 J
ug/m3	TO15	Vinyl chloride	0.51 U	0.51 U	0.064 U	0.064 U	0.064 U	0.064 U	0.27 U
ug/m3	TO15	Xylene (total)	5.2 U	5.2 U	2.8	3	6	12	2.8 U
ug/m3	TO15	Xylene, o-	1.7 U	1.7 U	0.6 J	1.1	2.2	2.4	0.92 U

TABLE 3
DATA USABILITY SUMMARY REPORT
JANUARY 2011 INDOOR AIR AND SUB-SLAB SAMPLING
FORMER HONEYWELL SITE
HOOSICK FALLS, NEW YORK

SDG	Lab ID	Method	Field Sample Id	Parameter Name	Lab Result	Lab Qualifier	Validated Result	Validation Qualifier	Reason Codes	Units
200-3615	200-3615-22	TO15	LS-SS-01-2-D	Methylene Chloride	1.5	JB	14	U	BL1	ug/m3
200-3615	200-3615-23	TO15	LS-SS-02-2	Methylene Chloride	0.54	JB	1.7	U	BL1	ug/m3
200-3615	200-3615-24	TO15	LS-SS-04-2	Methylene Chloride	0.63	JB	1.7	U	BL1	ug/m3
200-3615	200-3615-25	TO15	LS-SS-05-2	Methylene Chloride	0.69	JB	1.7	U	BL1	ug/m3
200-3615	200-3615-26	TO15	LS-SS-06-2	Methylene Chloride	0.80	JB	1.7	U	BL1	ug/m3

ATTACHMENT D
JANUARY 2011 PHOTOGRAPHS



Photo 1: Liberty Street Indoor air sample at IA-01

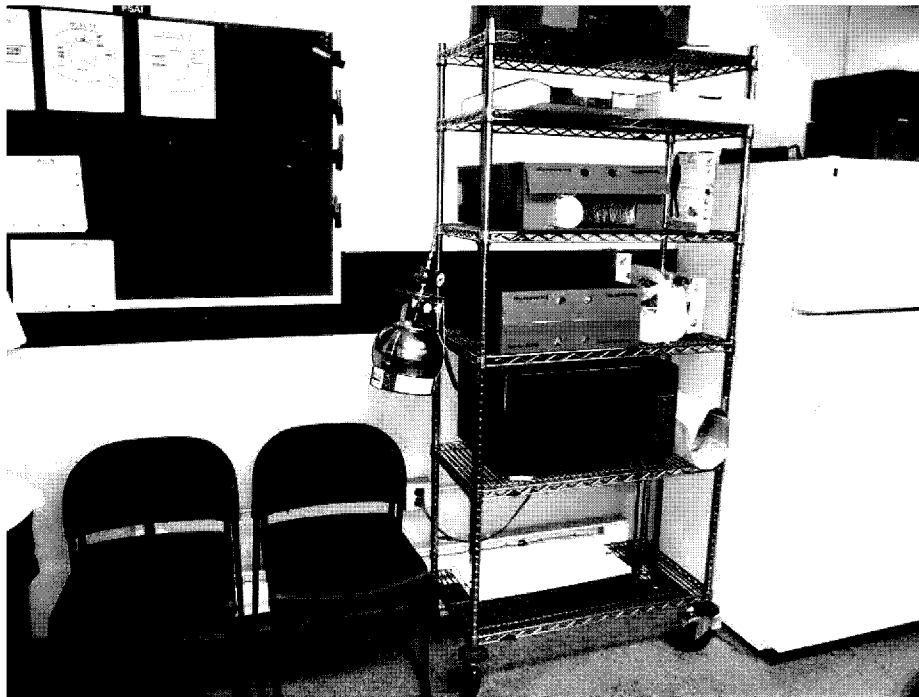


Photo 2: Liberty Street IA-01 sample



Photo 3: Liberty Street indoor air sample at IA-02 in Breakroom adjacent to Machine shop



Photo 4: Liberty Street IA-02 in Breakroom adjacent to Machine shop



Photo 5: Liberty Street indoor air sample IA-03 in the supervisor's office



Photo 6: Liberty Street indoor air sample IA-04 in QA office



Photo 7: Liberty Street IA-04 and SS-04



Photo 8: Liberty Street indoor air sample IA-06 in Human Resource's office

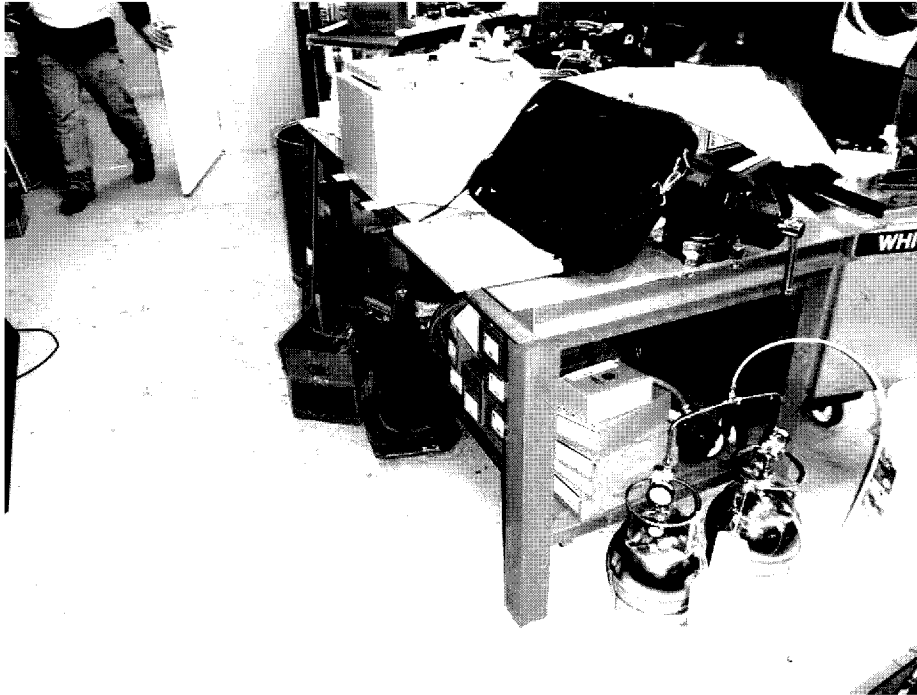


Photo 9: Liberty Street samples SS-01 and SS-01-D in electrical room



Photo 10: Liberty Street sample SS-02 in the warehouse

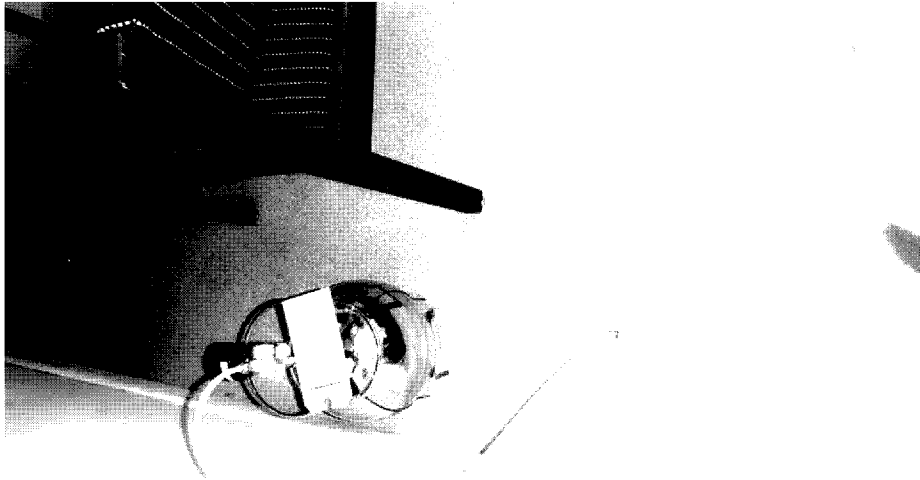


Photo 11: Liberty Street sample SS-04 in QA office



Photo 12: Liberty Street sample SS-05 in office

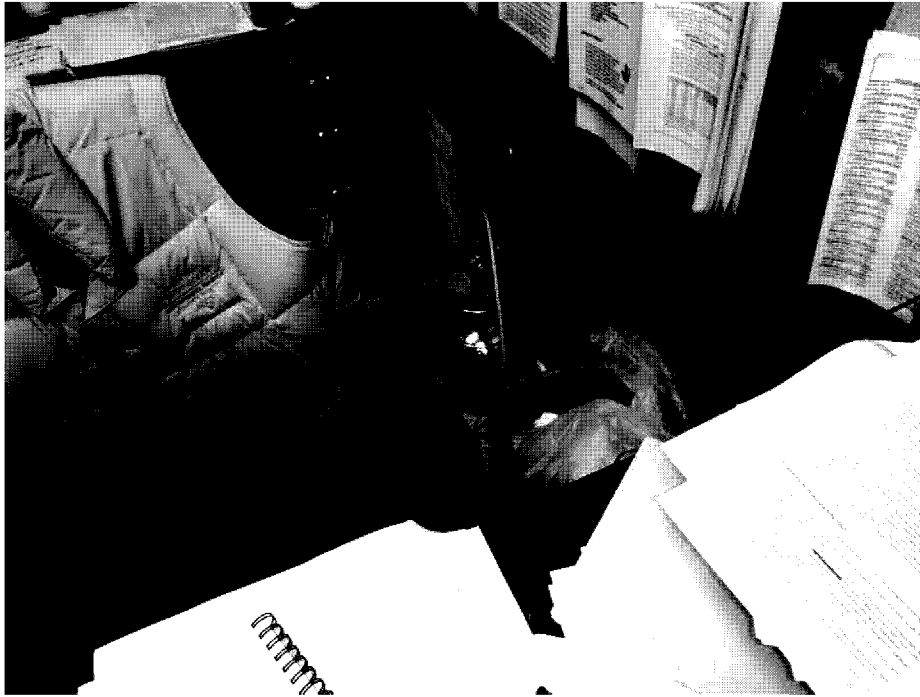


Photo 13: Liberty Street sample SS-06 in human resource's office



Photo 14: Liberty Street sample location SS-07 completion



Photo 15: Liberty Street Machine shop



Photo 16: Liberty Street Flammable Cabinets in Machine shop



Photo 17: Liberty Street Flammable cabinet 2 in Machine shop



Photo 18: Zep Lubrisil in Flammable Cabinet in Machine shop



Photo 19: Zep Lubrisil in Flammable Cabinet in Machine shop



Photo 20: Liberty Street Chemical Inventory in Machine shop

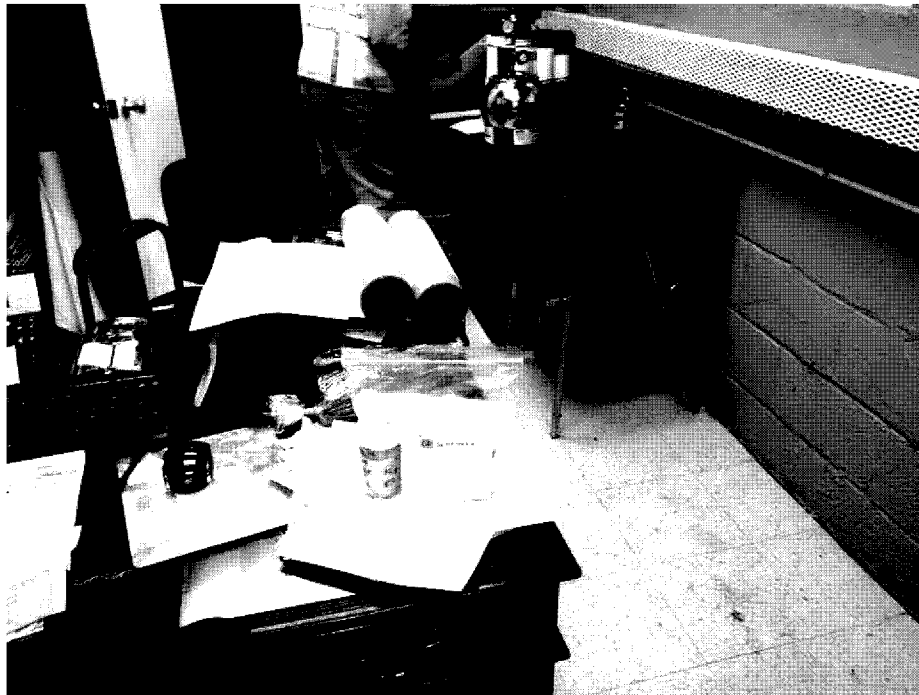


Photo 21: Liberty Street Chemical Inventory Near IA-06



Photo 22: Flammable cabinet near IA-07